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INFRASTRUCTURE FOR ECONOMIC DEVELOPMENT

THE ISSUES

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INFRASTRUCTURE FOR ECONOMIC DEVELOPMENT:

THE ISSUES

"One does not plan and then try to make the circumstances fit those plans. One tries to make the plans fit the circumstances."

(General George Patton)

PROJECT OUTLINE

The objective of the broader exercise is to reconsider the approach to infrastructure management and development in order to tap unrealised economic development potential and to recapture missed development opportunities. The project will:

- Explore how existing infrastructure could be managed and used differently to produce enhanced outcomes

- Consider crucial infrastructure gaps which may constrain capacity for growth – in the Hunter/Western Sydney/Illawarra arc, but also for the rest of NSW (particularly inland and rural regions) and as a model for Australia as a whole, and

- Consider the advantages of a single asset base to provide a more potent and productive economic force to compete globally.

This paper was conceived as a means of focusing stakeholder attention on the most productive dimensions of what is a very broad and frequently vexed subject. To minimise the risk of dead-ends in the discussion about to begin and to stimulate some adventurous thinking, we took a short list of 'conversation starter' questions to a targeted cross-section of thinkers on the subject:

- What are the serious infrastructure gaps we should be most concerned about in Australia and, in particular, the Hunter/Western Sydney/Illawarra geographic arc?

- What are the obstacles to their resolution?

- What are some new approaches that might produce better results?

- What would **you** do to achieve enhanced economic development and community prosperity with existing and prospective infrastructure?

- Are there some case studies which are particularly instructive? What are the main lessons?

This paper was not based on a structured survey. Rather, it has been developed from a series of quite diverse discussions, reflecting the civic passions of the talkers as much as their professional discipline and functional roles in the infrastructure chain. In the process, a number of common elements emerged clearly. We might call them the threshold issues.

- **Definitions**: There are many dimensions to the view of what constitutes infrastructure. Most thinkers urge the broadest possible view, encompassing not just the physical (‘hard’) infrastructure but also the 'knowledge' infrastructure and, importantly, the social (‘soft’) infrastructure. There is an underlying perception, too, that it is not just the physical form (design, engineering, scale etc) of the built infrastructure that will impact on economic development but, just as importantly, the way the infrastructure is managed.

- **Geography**: A recognition of the importance of scale and critical mass in the delivery of efficient infrastructure outcomes leads naturally to the consideration of regional collaborative solutions to infrastructure challenges.

- **Expectations**: Community aspirations and expectations play a big role in infrastructure planning and execution. Structured, informed and imaginative public debate on infrastructure issues is seen as an important factor in achieving sensible infrastructure outcomes.

- **Ownership**: A contemporary model of infrastructure development with a significantly expanded private sector role is still evolving. There is considerable residual ambiguity in balancing the public and the private interest, some of which is retarding infrastructure development. The resolution of these issues is considered to be fundamental to the realisation of economic development potential.

A more detailed outline of each of these threshold issues is presented below as a basis to focus further discussion on what is a very big subject.

THE THRESHOLD ISSUES

Definitions: Infrastructure and the Economic Development Platform

Arguably, the most critical infrastructure for economic development is that which relates, directly or indirectly, to the movement of people and goods – and that which relates to the generation, the storage and the sharing of knowledge.

This would include the physical ('hard') infrastructure – the ports, the roads, bridges and tunnels, the rail networks, the power stations, the cable roll-out, band-width and the like – as well as the knowledge infrastructure – the schools, colleges and universities, the research bodies, the libraries, the knowledge service providers and the like. The extent to which existing and proposed infrastructure performs or influences the execution of these vital functions of an economy will determine the potential of any given region to prosper.

But without vibrant and well functioning social infrastructure (the hospitals, health care facilities, social services, entertainment, the arts, the law etc) the quality of economic growth and, ultimately, the quality of life will be of a lower order. This, in turn, will condition the pace and nature of economic growth – in short, the *realisation* of economic potential. Conscious attention to the need to provide high quality social infrastructure as part of the business attraction and retention package has been a feature of some convincing case studies, such as the contemporary Irish experience. Quality social infrastructure is essential in attracting and retaining quality managers and workers – a vital element in determining overall competitiveness.

Perhaps a disproportionate degree of the debate on infrastructure for economic development, however, focuses on the hard infrastructure and, within that category, on traditional economic infrastructure such as transport networks. This is the 'recognisable' aspect of infrastructure, reinforced by the big dollar decisions which ensure the maximum political stakes and, hence, exposure to the general public through media coverage.

But, in fact, investors tend to take most of the hard infrastructure as a 'given' in the economic development platform. Except in the case of large scale turnkey investments investors simply *expect*, as an entry-level proposition, that they will have adequate access to:

- Power
- Water
- Air and sea freight access
- Telecommunications
- Waste management.

In any case, the practical dimension of the infrastructure question for most businesses – whether they are existing businesses seeking to maintain or improve their competitive position or new investors making location decisions – is more a cost consideration than one of availability *per se*. In a very practical sense, therefore, the quality of the *management* of infrastructure is, for most businesses, the more significant determinant in investment decisions: their principal concern is that essential infrastructure services are provided in an efficient way so that user charges do not impact adversely on the competitiveness of user industries.

Land and building costs are also an important practical consideration. Some local governments have sought to advance the pace of economic development through the provision of serviced industrial land – either as a public asset or through private sector developers. Where this adds to the stock of usable industrial land in good locations, and where it lowers operating costs to tenants through critical mass in the provision of basic services, such infrastructure can result in accelerated development.

This approach, though, does have limits – and limitations. Industrial estates are more attractive to small and medium enterprises – and generally to small and medium manufacturing and industrial service firms. ‘Business incubators’ in various locations and ‘technology parks’ have been important in nurturing new industries, though generally only where there are other location factors in play, such as location within a university precinct.

But, in any case, physical infrastructure is only one part of the development equation. The Department of State Development says, for example, that among the factors ranked most highly by foreign investors in attracting them to Sydney are:

- Skilled workforce
- Longtitude (proximity to Asian capitals)
- Cosmopolitan communities
- Lifestyle
- Social infrastructure (eg quality of health services, education standards)
- Security
- Transparency of government
- Rule of law.

Most of these factors are also present in the development equation in the regions which are the focus of this project. However, distance is a factor in their appreciation by investors: some are more immediately evident in the principal business hub and may impact with less force the further a particular location is from the CBD.

For all these reasons, it will be important to adhere consciously to the broader definition of infrastructure in the investigation of alternative approaches to infrastructure development in the regions under consideration.

QUESTIONS

- What are the infrastructure gaps that need priority attention in the Hunter/Western Sydney/Illawarra arc?
- Given the existing industrial profile of the regions in this study and the industries they seek to attract, has the correct balance been struck between the physical (‘hard’), the social (‘soft’) and the knowledge infrastructure?

- Have the needs of established businesses to maintain/improve their competitiveness and generate growth been adequately reflected in infrastructure management practices and planning decisions in the regions?
- Or has the desire to attract new industry overshadowed the needs of established businesses in setting infrastructure priorities?

Geography and the Political Economy

One of the main considerations in providing economically viable infrastructure solutions in Australia is scale. Of course scale is a generic factor, wherever the location, but the sheer size of the country and its tiny population combine to give the scale factor a unique dimension in Australia.

On the positive side, scale is arguably more achievable in the geographic arc from Newcastle to Wollongong than possibly anywhere else in Australia: it has by far the largest population concentration and the largest slice of the nation's economy.

Still, a lot of the historical infrastructure development in the regions under consideration in this project has been focused on local needs, rather than conceived of specifically as a functional component of a common asset base in a broader regional infrastructure network. Inevitably, too, there is an element of competition between the regions within the arc in attracting new investment and new industry. An additional layer of complexity arises from their proximity to 'global' Sydney. It is important to consider, from the standpoint of regional economic development, whether this is a plus or a minus and, in either case, what this indicates for infrastructure choices.

There is a robust international debate on the issue, spurred on by the pace and nature of globalistion, and lots of new planning activity which reflects the debate. In his landmark work on globalisation, John Naisbitt[1] posited the emergence of small scale democracy as a systemic outcome of globalisation. He forecast the rapid evolution of stronger regional identities (political independence, self-rule) on the one hand, but, reflecting the practicalities and realities of the global economy, the emergence of stronger regional *economic* alliances on the other. In a turn of the century interview with Philip Adams[2], Naisbitt said that the tendency for globalism to intensify localism and the desire for 'identity' might see as many as 2000 nations by the middle of this century.

[1] Naisbitt, J. *Global Paradox: The Bigger the World Economy, The More Powerful Its Smallest Players*, Allen & Unwin, 1994

[2] Adams, P. *The Lucky Democracy?*, Panorama Magazine, January 2000.

Other strategic analysts have mapped the emergence of 'citistates' – burgeoning metro regions which are becoming so powerful they are challenging the 'nation-state' model of civic and economic governance.

China's Civil Affairs Ministry, for example, is envisaging an interlocking network of 40 mega-cities on its coastal plains which, over the next 20 years, will grow to accommodate 750 million people. The Ministry sees the achievement of concentrated scale as the only feasible means of providing state-of-the-art infrastructure which the nation, otherwise, would not be able to afford.

On 12 April this year Tokyo Governor Shintaro Ishihara unveiled a draft 'metropolitan megalopolis' plan which would incorporate the City of Tokyo and the surrounding Prefectures of Saitama, Chiba and Kanagawa in a 'wide-area' model of governance to confront contemporary administrative and infrastructure challenges. If ultimately successful, this would create the world's largest metropolitan area, with a population of 33 million. Even if it does not proceed it will have served, as the Nihon Keizai Shimbun recently noted, to challenge "the powers of bureaucrats with old ways of thinking … and remove long-standing administrative walls that hinder cooperation in a top-down manner." [3]

This debate prompts the question as to whether the regions contiguous to Australia's only 'citistate' contender, Sydney, would maximise their economic potential by trying to maintain a separate identity and preserve their planning autonomy or, alternatively, by pursuing their development goals deliberately as functional components of a 'citistate'.

Sydney has become an increasingly important driver of growth in the Australian economy and a more powerful magnet for foreign investment, corporate regional headquarters, migrants, and for higher skilled and lower skilled people from other parts of Australia. All of this suggests economic, employment and population growth of a significant order of magnitude. However, the physical capacity of established Sydney[4] to absorb a significant proportion of the anticipated population growth is severely limited.

This presents a big challenge for the surrounding regions, which have a number of things in common. They share the consequences of being at a distance from Sydney's global infrastructure gateways and significant infrastructure and service backlogs compared to established Sydney. They have a high concentration of manufacturing activity and, accordingly, a large industrial workforce. They also have a high average unemployment. But they have the ability to absorb the bulk of the projected population which is expected to follow from Sydney's growing status as a Southern Hemisphere hub of the global economy.

The National Institute of Economic and Industry Research (see Table 1) has forecast a regional pattern of population growth to accommodate the anticipated 1 million additional people expected to be living in the broadly defined region by 2021. It envisages only 10 per cent of this population growth taking place in established Sydney and the remainder being accommodated in the surrounding regions.

[3] *Nikkei Weekly*, 30 April, 2001

[4] Defined for the purposes of this analysis by The National Institute of Economic and Industry Research as the northern suburbs to Hornsby, central and eastern Sydney, the inner west as far as Strathfield and southern Sydney to Sutherland.

Table 1: Population Forecasts for Established Sydney and Contiguous Regions				
Region	**Population 1996**	**Population 2021**	**Population change 1996-2021**	**% change 1996-2001**
Established Sydney	2,026,729	2,133,329	106,600	11.2%
Western Sydney	1,584,371	2,184,371	600,000	62.9%
Newcastle SSD	463,400	523,900	60,500	6.3%
Wollongong SSD	255,700	292,600	36,900	3.9%
Central Coast	270,000	420,000	150,000	15.7%
Total GMR	**4,600,200**	**5,554,200**	**954,000**	**100.0%**

Source: National Institute of Industry and Economics Research, derived from Department of Urban Affairs and Planning forecasts.

Other scenarios have been posited. One scenario might be to encourage higher growth of Lower Hunter and Illawarra and take some of the pressure off Western Sydney[5].

Until relatively recently the primary planning goal for Sydney was urban consolidation – more intensive utilisation of existing infrastructure in inner city areas and limiting what has been termed 'urban sprawl' in Western Sydney and the Central Coast. Newcastle and Wollongong were seen as separate entities focused on their resource, port and industrial bases. A 'Greater Metropolitan Region' was first conceptualised in the 1968 Sydney Region Outline Plan, which posited a linear expansion along transport and communications corridors, new cities within each sub-region and strengthening inter-regional links between Newcastle, Sydney and Wollongong. The 1995 Metropolitan Strategy took the concept further, stating:

> *"Newcastle and Wollongong are recognised not only as cities in their own right and as centres for their surrounding regions, but also as integral parts of a wider urban system – the Greater Metropolitan Region.*
>
> *"Within Sydney itself, there is increasing awareness that Western Sydney enjoys a different set of advantages, and faces a different set of challenges, to those of the eastern areas of the city".* [6]

While not a 'citistate' (as defined in the international literature), the City of Brisbane is, nevertheless, Australia's largest local government unit. It has allowed its urban and regional economic bulk to provide the essential critical mass for regional infrastructure solutions for the broader Southeast Queensland region. The airport-port corridor (known as Australia TradeCoast), for example, is being developed as a regional commercial hub linking regional industry to national and international markets by the Gateway Arterial Road system, a

5 National Institute for Industry and Economic Research, *Whole of State Development*, NSW Local Government and Shires Associations, 2000. This report looks at an option to further increase the population of the Lower Hunter and Wollongong by an additional 50,000 and reducing Western Sydney by 50,000, but based on major private and public investment in fast rail infrastructure and major new economic development initiatives in the two 'post-industrial' regions.

6 NSW Department of Urban Affairs and Planning, *Cities for the 21st Century*, 1995.

standard gauge rail link, Brisbane Airport and the Port of Brisbane (Australia's only purpose-built capital city inter-modal complex).

The Southeast Queensland Regional Organisation of Councils (SEQROC) is the vehicle for regional planning collaboration. It is a standing committee consisting of the mayors of the 18 Councils, in a population catchment of 2.4 million people, seeking to provide a regional framework for growth management with a specific focus on infrastructure. Collaborative initiatives have included the creation of a free-standing SEQ Water Corporation, an SEQ telecommunications infrastructure plan, collaborative social infrastructure and facilities and the promotion of a Gold Coast/Brisbane technology corridor. Where it can be shown to benefit the region broadly, parts of the infrastructure could become a common regional asset – as has already happened with water management and supply.

Another interesting recent development is the historic agreement between the Governments of NSW and Victoria to bring the cities of Albury and Wodonga under a single administrative framework in order to permit a more integrated approach to economic development and the provision of infrastructure and local government services.

This can be described as 'reality chasing history'. Two towns physically separated only by a river but procedurally kept separate by a Constitution have, nevertheless, achieved a sensible regional economy and, with encouragement from the Federal Government if not always their State masters, elements of a regional infrastructure. Further work to consolidate a 'natural' region will now be considerably more promising than it has been historically.

The issue for consideration here is whether the absence of a formal provision for regional government in the Constitution is a negative factor in infrastructure planning and execution and, accordingly, a factor in missed opportunity and unrealised economic potential. In the absence of a formal institutional mechanism for regional *government* as such, it is necessary to consider the means to achieve effective regional *governance.* The SEQ experience is instructive in this regard.

QUESTIONS

- What infrastructure gaps could be addressed in a broader cross-regional context?
- Are the governance mechanisms available to effect regional infrastructure outcomes adequate to the task in a fast-moving global economy?
- Can infrastructure solutions realistically be contemplated in isolation from contiguous regions – and, in this particular case, 'global' Sydney or, indeed, the Central Coast and the Capital Region?
- Is proximity to a 'global' city a plus or a minus?

Community Aspirations and Expectations

"It is better to be the head of a chicken than the tail of an ox."
(Old Chinese Proverb)

One of the important issues in delivering infrastructure solutions is the setting and management of realistic expectations and aspirations – at all levels in the community.

Much of the infrastructure development in Australia historically – and, in particular, the hard infrastructure – has been sold as 'nation building', in which cost and the underlying economics were often secondary considerations to 'achievement'. The Snowy Mountains Scheme is one historical example. The Alice Springs–Darwin Railway is evidence that this sentiment is not entirely consigned to history.

It has certainly got some outstanding things done but, equally, the detachment of benefit from cost has fed a 'free goods' mentality in regard to infrastructure services. It has led to expectations that are difficult to validate in the contemporary political environment in which governments are both taxation-averse and debt-averse and consumers are intensely charge-sensitive. But sentiments persist that the quality and cost of services should be similar irrespective of location, or that user charges should relate to some public perception of what is 'reasonable' rather than what they cost to provide.

How much infrastructure is adequate, affordable – or even desirable? These are threshold questions on which the broader public should, perhaps, be more effectively engaged. They also raise the question of whether the electoral process is as effective a means for the general public to audit government performance in this regard as convention leads us to conclude.

Infrastructure is an inherently long-term proposition yet aspirations and expectations are frequently telescoped by circumstances.

Elections can do this: the pork barrel is a powerful lure to gain or recover popular support for a political party, sometimes in a way that results in imprudent infrastructure commitments.

Big events can also influence planning priorities. The Sydney Olympics demonstrated how a positive and informed public interest can be an effective resource for progress: in short, the public *wanted* the Olympics and this empowered the Government to deliver a spectacular outcome. But, equally, the Olympics provided the rationale for infrastructure developments that would have struggled for economic justification in ordinary circumstances. And some of these will struggle to survive on post-Olympic levels of demand – the City-Airport rail link, for example.

The saga of the 'new Sydney airport' demonstrates how public ambiguity can act as a de-motivator of public sector resolve or even as an immovable obstacle to rational infrastructure outcomes. The issue for government, at all levels, is whether it sees its role in infrastructure development as being to lead or to follow public opinion. Development is often as much a function of 'civic courage' as pure economics.

A related issue is timing. We are often reminded that 'Rome wasn't built in a day'. Yet we too often allow ourselves to think that an identified need in a particular region must be conceived and delivered in a near-term timeframe – whether circumstances dictate it or not. This frequently leads to over-reaching, especially at lower levels of government. It occasionally leads to the filling of planning 'gaps' simply because they *exist*, rather than because they are clearly retarding community or economic development.

An example of over-reaching in this region is the commitment by the State government to the Paramatta-Chatswood rail link. It now appears beyond the capacity of State finances on the timetable initially proposed. In any case, this State-level decision risks being contradicted (or even invalidated) by a Commonwealth-level initiative to consider the rail transport infrastructure for the eastern seaboard on a national basis. The Commonwealth Government has called for tenders for a scoping study for an east coast Very High Speed Train (VHST) network linking Melbourne, Sydney and Brisbane, together with Canberra and the major regional and coastal centres along the route. It has also announced its intention to proceed with the Sydney Orbital road system, as part of the National Highway system.

One issue in this regard is the term of elected governments – a factor complicated by our three-tier system of government and the reality of separate electoral processes and, hence, overlapping terms of Commonwealth, State and local governments.

A second contributing factor is the boundary on timing imposed by budget processes. It is tempting, on the one hand, for governments to rush solutions into an accommodating budget framework and this can produce hasty outcomes that do not match longer-term needs. On the other hand, the inherently short-term (or, at best medium-term) nature of any budget planning framework does tend to constrain long-term vision building.

A recent change in the policy setting that could impact on infrastructure outcomes is the revenue entitlement arrangements that will apply in the post-GST taxation regime. Now that the States have direct access to a growth tax (GST) there must be some doubt that the concept of Commonwealth Special Purpose Grants, in the past a primary instrument to achieve national infrastructure objectives, will survive. Under the new arrangements the financial power to provide infrastructure will be a function of where the population resides – or, more precisely, where the wealth is concentrated. This should favour NSW, at least in a macro-revenue sense, though the specific application of funds will still be a political choice.

QUESTIONS

- What level and style of community dialogue is appropriate to produce informed and socially validated infrastructure decision-making?
- How might the mechanisms for inter-agency and inter-governmental communication on infrastructure planning be improved?

- How can the practical constraint of prudent budgeting be managed in such a way as to encourage long-term infrastructure planning?

Ownership: The Private Interest and the Public Good

One common theme raised by those consulted in the preparation of this paper is the prevailing sense of ambiguity in the interpretation, at different points in the infrastructure chain, of the respective motivation, roles and responsibilities of the public and the private sector in infrastructure development.

This has been brought into sharper relief by accelerated deregulation, the privatisation in recent years of a number of major existing infrastructure assets and the increased reliance on a private sector development role in bringing on *new* infrastructure. It has also introduced more levels to the chain – eg the emergence, and the prevailing market power, of managed infrastructure investment funds.

One dimension of the new situation is what might be called 'the accounting trap'. Treasuries, rather than industry departments, have become major determinators of infrastructure outcomes in the new situation. Their primary motivation seems to be to maximise capital recovery in the sale of public infrastructure assets. Another motivation is to avoid the need to rely on a dwindling tax base for both the operational costs of existing infrastructure as well as generating the capital to fund new infrastructure.

This can be completely at odds with other public interest objectives of government. In particular, action to maximise the capital return in the privatisation transaction may burden a private operator with ongoing costs that can only be recovered by substantial increases in user charges. But this may be opposed by another (regulatory) level of government. In such a case, any damage to private profitability as a consequence of an imposed non-market pricing regime will act as a disincentive for future investment by managed funds and corporate investors. It will also impact on the *means* to invest in capital replacement by restricting the process of capital recovery and the building up of capital reserves to fund new projects. This can result in a progressive decline in infrastructure productivity.

Equally, ambiguous privatisation and deregulation situations can impact deleteriously on regional economic development. Under-supply is a major risk.

California is a topical example where bungled deregulation of the energy market has resulted in such serious under-supply that electricity prices have soared by up to 130 per cent since 1998, adding some US$200 billion to industry and household operating costs. According to the Business Week Corporate Scoreboard, rising energy prices contributed to a 26 per cent decline in overall corporate earnings in the first quarter of 2001, the biggest drop in almost ten years.[7] Manufacturers are threatening to leave the State or close down and other States are stepping up their business recruitment efforts to exploit California's woes.

Australia is by no means free of such risks. In South Australia, for example, deregulation of the electricity sector is being tipped to result in imminent rises in power bills for industry of up to 100 per cent and, for households, of 30 per cent.[8] This is undermining business profitability and presents a serious threat to economic growth, in a State that already seriously lags national averages of economic, income and employment growth.

Recent reviews[9] have warned that existing regulatory practices and unnecessarily complicated market structures may be distorting Australian markets for key infrastructure services, such as electricity. The Productivity Commission has observed that regulations should avoid promoting competition and lower prices at the expense of necessary investment. It has recommended that the Trade Practices Act be overhauled to recognise that competition is not an end in itself but, rather, a means to ensure an efficient use of resources.

Private developers of new infrastructure have also been critical of complicated (and therefore gratuitously expensive) public sector tender processes. Over-reverence for probity protection, for example, can not only result in unnecessarily elaborate procedures and over-documented proposals and tenders, but can operate to constrain constructive opportunities for 'partnering' between developers and public authorities. The consequences of this can be profound, including:

- Loss of creativity
- Mismatching of needs and outcomes
- Over-provision
- Under-provision
- Inflated costs
- Missed economies.

So what is the appropriate role for various levels of government (state, regional, and local) in the contemporary political and economic environment?

- Vision building?
- Leadership?
- As owners?
- As providers?
- As determinators?
- As facilitators?

And what is the role for private investment? Privatisation and deregulation have cast the private sector in new roles in infrastructure development. But, as recent outcomes on some major private sector infrastructure projects demonstrate, we are still coming to terms with the full ramifications and the appropriate balance of responsibilities between the public sector and the private sector. The Private-Public Partnership (PPP) model is still very much in evolution

[7] Business Week, 14 May, 2001
[8] The Sunday Mail, 29 April 2001
[9] By the Productivity Commission, the World Energy Council

in Australia, perhaps to the detriment of effective and efficient infrastructure outcomes - at least in the short-term.

QUESTIONS

- What does deregulation mean for the effective realisation of community infrastructure aspirations in the Hunter/Western Sydney/Illawarra arc?
- Does market reality adequately inform the practices and processes of government in the regions under consideration?
- Is there a gap between public aspirations and feasible, market-driven outcomes?

A Final Word on the Subject

"Failure is never quite so frightening as regret"

(from the movie *The Dish*)